

Amendments to the Claims: This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

1. (Currently Amended) A system for the detection of the presence of objects in a blind angle of an automobile vehicle, installed in an automobile vehicle and comprising:

first means of detection ~~(1)~~ of distortion of the earth's magnetic field caused by the entry of an object, containing at least one ferromagnetic material piece, in a zone of said blind angle covered by said first means of detection ~~(1)~~ that supplies electric signals, on the basis of the value of said magnetic field, to an electronic circuit ~~(5)~~ with a digitising stage for said signals,

a second stage that analyses the signals obtained after said digitising; ~~and~~

a first stage that generates variable output signals on the basis of the results of said analysis; ~~and~~

~~characterised in that it further comprises~~ second means of detection ~~(2)~~ for any possible magnetic distortion generated from the trajectory of said automobile vehicle, associated with said electronic circuit ~~(5)~~ and intended to neutralise the influence of said possible magnetic distortion on the detection of said first means ~~(1)~~.

2. (Currently Amended) A detection system in accordance with claim 1, ~~characterised in that it further comprises~~ comprising third means of detection ~~(3)~~ of any possible magnetic distortion deriving from the vehicle's inclination and/or vibration, associated with the cited electronic circuit ~~(5)~~.

3. (Currently Amended) A detection system in accordance with claim 1, ~~characterised in that it further comprises~~ comprising fourth means of detection ~~(4)~~ of any possible magnetic distortion deriving from magnetic fields generated within the vehicle, associated with the cited electronic circuit ~~(5)~~.

4. (Currently Amended) A detection system in accordance with claim 1, ~~characterised in that~~ wherein said second means of detection ~~(2)~~ ~~incorporate~~ comprises at least one accelerometer.

5. (Currently Amended) A detection system in accordance with claim 1, ~~characterised in that~~wherein said second means of detection ~~(2)~~comprises at least ~~some~~ means of data acquisition employing a turning sensing pulse system located at least on one of the vehicle's wheels.
6. (Currently Amended) A detection system in accordance with claim 1, ~~characterised in that~~wherein said second means of detection ~~(2)~~comprise at least one turning detection device located on the vehicle's steering wheel.
7. (Currently Amended) A detection system in accordance with claim 2, ~~characterised in that~~wherein said second means of detection ~~(2)~~and said third means of detection ~~(3)~~comprises at least one 2-axis accelerometer.
8. (Currently Amended) A detection system in accordance with claim 3, ~~characterised in that~~wherein said fourth means of detection ~~(4)~~comprises at least two magnetic field sensors located inside the vehicle, connected in common mode, distanced from each other and positioned in such a manner that they generate very similar output signals when one of said magnetic fields is produced inside the vehicle.
9. (Currently Amended) A detection system in accordance with claim 1, ~~characterised in that~~wherein said first means of detection ~~(1)~~comprises at least one magnetic sensor ~~(6)~~housed inside a rear-view mirror assembly outside the vehicle.
10. (Currently Amended) A detection system in accordance with claim 8 ~~or 9~~, ~~characterised in that~~wherein said sensors are magnetoresistive.
11. (Currently Amended) A detection system in accordance with claim 8 ~~or 9~~, ~~characterised in that~~wherein said sensors are ~~those of a~~ selected from the group formed by consisting of flux-gate magnetometers, hall type sensors and magneto-inductive sensors.
12. (Currently Amended) A method of detection of the presence of objects in a blind angle of an automobile vehicle of the type that, ~~through~~ is based on the use of ~~some~~ first means of detection ~~(1)~~ of distortion in the earth's magnetic field caused by the entry of an object, which contains at least one ferromagnetic material, in a zone of said blind angle covered by said first means of detection ~~(1)~~ and an electronic system, ~~comprises~~ comprising:

carrying out the detection of the entry of said object into said zone,

obtaining signals that represent said detection,

processing and analysing of said signals, ~~and~~

generating of some variable output signals on the basis of the results of said analysis,
~~characterised in that it further includes~~

carrying out, by means of said electronic system and at least ~~some~~ second means of detection ~~(2)~~, the detection of possible magnetic distortion deriving from the trajectory of said automobile vehicle's trajectory vehicle, and the

processing and ~~analysis~~ analysing of signals that are representative of said possible magnetic distortion deriving from the automobile vehicle's trajectory, in order to neutralise its effect on the detection obtained by the first means of detection ~~(1)~~.

13. (Currently Amended) A method of detection in accordance with claim 12, ~~characterised in that it further comprises~~ comprising carrying out, using said electronic system and at ~~some~~ least third means of detection ~~(3)~~ of possible magnetic distortion deriving from the inclination and/or vibration of the automobile vehicle, the processing and analysis of signals representative of said possible magnetic distortion deriving from the inclination and/or vibration of the automobile vehicle in order to neutralise their effect on the detection obtained by the first means of detection ~~(1)~~.

14. (Currently Amended) A method of detection in accordance with claim 13, ~~characterised in that it further comprises~~ comprising carrying out, by means of said electronic system and ~~some~~ a fourth means of detection ~~(4)~~ of possible magnetic distortions produced by magnetic fields generated inside the ~~actual~~ vehicle itself, the processing and analysis of signals representative of said possible magnetic distortions produced by magnetic fields generated inside the ~~actual~~ vehicle itself in order to neutralise ~~their~~ its effect on the detection obtained by the first means of detection ~~(1)~~.

15. (Currently Amended) A method of detection in accordance with claim 14, ~~characterised in that~~ wherein for each of the possible trajectories adopted by the vehicle and/or of the possible positions of inclination and/or vibration suffered by the same and/or of the magnetic fields generated inside the ~~actual~~ vehicle itself, after said processing and analysis of the signals representative of the possible magnetic distortions, it comprises ~~the storage~~ storing, by means

of the electronic system~~(5)~~, of distortion values of the earth's magnetic field, with these values forming a table that relates trajectory, inclination and/or vibration or magnetic fields generated inside the vehicle with the corresponding distortion of the magnetic field due to the specific circumstances.

16. (Currently Amended) A method of detection in accordance with claim 15, characterised ~~in that~~wherein at least one of said values, representative of the vehicle's circumstances at any moment, with said circumstances being known through the second, third and fourth means of detection, is ~~processed~~operated with the distortion value of the earth's magnetic field obtained by the first means of detection ~~(1)~~ for this same instant.

17. (New) A detection system in accordance with claim 9, wherein said sensors are magnetoresistive.

18. (New) A detection system in accordance with claim 9, wherein said sensors are selected from the group consisting of flux-gate magnetometers, hall type sensors and magneto-inductive sensors.